In This Issue...
- GATT Deal in Jeopardy? Funding ideas for GATT could cost crucial congressional votes .......................... page 2
- Revised Farmland Definition Nearly Complete: Farm Bureau continues efforts to seek immediate effect from the House .......................................................... page 3
- Weather Outlook: Summer of '92 revisited? .................................. page 4
- Markets: Old crop should be priced and new crop objectives set says MSU's Jim Hilker ................. page 6
- Custom Rate Questions: Get the latest rates in Michigan from A to Z ............................................. page 7
- IPM Gets a Financial Shot in the Arm in Michigan: Industry efforts raise $66,000 for MSU IPM research .............................................. page 8
- The Ginseng Alternative: Michigan's newest crop averages 2,000 lbs./acre with price ranges of $25 to $60/lb .......................... page 10
- Historic Herbicide Registration: Monsanto and Zeneca get the nod from EPA, with some new strings attached ......................................................... page 12
- MSU's Turfgrass Management Program: A look at one of MSU's most popular programs, plus hear from a recent graduate, about the various opportunities ........................................ page 13
- Is There a Future for the Smaller Pork Producer? An economic report to the American Farm Bureau Swine Advisory Committee says yes .......................... page 16
- Focus on the Future: Michigan Conference on the Horse Industry looks for answers during June program .......................................................... page 16

SoyDiesel Hits Flint Roads in City Busses
TWO mass transit busses in Flint will be burning what many Michigan farmers will be planting this spring. Soy diesel, a blend of 20 percent bio-diesel made from soybean oil and 80 percent regular diesel, will be tested in two Flint busses for 50,000 miles.

During that time, emission and engine wear tests will be conducted, to determine if soy diesel is the answer for stricter mass transit emission standards, scheduled to go into effect in 1996. According to Hayward Seymour, director of maintenance for the Flint Mass Transit Authority, soy diesel has several benefits over other alternative fuel options.

"Soy diesel is definitely a cheaper alternative fuel in respect to retrofitting both the engines and the facilities," Hayward said during an April 28 ceremony in Flint. "It's very costly to retrofit these diesel engines to burn natural gas or liquid natural gas, plus we would have to install fire sensors in all of our maintenance buildings.

Thanks to the support of soybean producers across Michigan and the U.S., nearly 7 million miles have been logged in diesel engine tests burning soy diesel, according to Kenlon John-
nes, executive director of the National Soy diesel Development Committee. "That ranges from farm tractors, to a bus going around the world, to over 30 different mass transit in major cities trying soy diesel to see if it can fit into their plans to meet new alternative fuel standards."

Flint's mass transit authority was the only one out of 20 different Michigan municipalities approached by the National Soy Diesel Development Board to implement the soy diesel program in their mass transit busses, according to Keith Reinbolt, Michigan Soybean Promotion Committee executive director. He expects other municipalities to eventually follow Flint's lead.

"That's good news for Michigan farmers for two reasons," Reinbolt said. "It will use more soybean oil, which is an abundance of, and it puts a very positive light on agriculture's role in a cleaner environment." Tests of soy diesel, which has no sulfur, shows that it reduces the emissions of smoke and soot, carbon monoxide and hydrocarbons in unmodified diesel engines.

Currently, using soy diesel in a fuel program means an additional cost of 30 to 40 cents per gallon for the fuel. Reinbolt expects that once the market and demand start to grow, the cost of this alternative fuel will drop considerably.

Understand Those New Fees on Your Fertilizer and Chemical Invoices?
In case you haven't noticed, there may be a new line item on your fertilizer and chemical invoices this spring. Like it or not, recent changes in federal pesticide registration requirements created the need for Michigan to develop a groundwater protection plan to determine cancellation of several pesticides which could pose a threat to groundwater quality.

Those pesticides included herbicides, such as atrazine, alachlor, bromacil, carfentra, cyazine, metolachlo, metribuzin, and simazine, according to Michigan Farm Bureau's Vicki Pontz. Cooperative efforts between the Michigan Farm Bureau, Michigan Department of Agriculture and the Michigan Agri-Business Association, resulted in successful passage of the "Groundwater and Freshwater Protection Act," in November of 1993.

The "Groundwater and Freshwater Protection Act was designed to provide the Michigan Department of Agriculture the ability to assist pesticide users in the development of an acceptable groundwater protection plan and to provide the resources necessary to promote education, technical assistance and cost-share programs," Pontz explained. "The groundwater program will help the farm community develop a single set of 'Groundwater Stewardship Practices,' that will be practical, economical, and acceptable to the farm community."

Programs under the act will be funded by increases in pesticide and specialty fertilizer registration fees, as well as grower fertilizer tonnage fees. For agricultural pesticides, the fee is

Continued on page 11, see Groundwater Protection Act

Widespread Rains Put the Spring Rush on Hold
Despite a couple of good weeks in mid-April, most field work was halted the last week of April and first week of May, thanks to heavy rainfall throughout most of Michigan. As of May 9, Michigan Ag Statistics reported that 20 percent of the state's corn crop was planted, 80 percent of the sugar beets were planted, and potato planting was 25 percent complete. Fruit development was reported as normal, and asparagus harvest had started in southwest Michigan. The 90-day outlook predicts continued wet and cool, says MSU's Jeff Andresen (see page 4).

At right, Gordy Locke, of Pete Clark Farms, near Grand Ledge, was taking advantage of ideal soil conditions prior to the heavy rains, with an 8760 John Deere and a 32 foot Mulch Master outfitted with slicing lines, in preparation for corn planting. The farm operates 5,000 acres of corn, soybeans, and wheat.
The buy-out plan offers up to $25,000 to employees who agree to resign or retire early. Most of the departures to date are buy-outs and are likely to leave the payroll next month, the USDA said.

The Agriculture Department says 1,200 of its employees have arranged to resign under a buy-out plan by 7,500 by 1998 from its current level of 112,000. The staff reduction fits in with Agriculture Secretary Mike Espy's effort to reduce employment as part of a $3.9 billion reduction in the government's deficit.

For years, Japan has bowed to pressure from its farmers to keep imported apples from coming into the country. So far, only New Zealand has been able to win approval to sell apples to Japan. Japanese officials say the apple ban will probably not be lifted before October if the report of their inspection team is favorable. Japanese farmers have already staged a protest against the first shipment of New Zealand apples (110 pounds) to reach the country.

U.S. agricultural exports totaled $3.5 billion in February, down 9 percent from the same month in 1992, according to an Agriculture Department report. Foreign sales of wheat, coarse grains, soybeans and other products dropped 18 percent for the month to lead the decline. However, exports of consumer-oriented products hit $1.1 billion, a 5 percent increase. That category included poultry products, prepared meats, pet foods, beer and wine, the report said.

Even though the new world trade agreement has been signed by member countries of the General Agreement on Tariffs and Trade (GATT), it still requires support from legislators around the world, including the U.S. Congress. A letter to President Clinton, signed by all 17 members of the Agriculture Committee, says that support is critical to making sure the administration tries to cut farm program spending to offset revenue lost through elimination of import tariffs.

The American Farm Bureau has already warned the administration that agriculture's support would be lost if the decrease in tariff revenues are paid for by cutting farm programs, which already have taken more than their share of cuts to reduce the deficit. Essentially, the same warning now comes from the Senate Agriculture Committee, according to an Associated Press report.

In a letter to President Clinton was too subtle, Senate Ag Committee Chairman Patrick Leahy (D-Vt.) gave a blunt interpretation. "Read that letter very carefully," Leahy said. "You can't afford to lose 17 votes." Another indication of congressional opposition to cuts in farm spending to make up the import tariff shortfall to comply with the GATT agreement came from Rep. Pat Roberts (R-Kan.).

He told reporters the Clinton administration plans to take $5.6 billion of the $14 billion in lost revenue out of the agriculture budget, according to Knight-Ridder News. "Agricultural imports will account for $2.5 billion or 5 percent of the lost tariff revenue," he said, "but the administration wants farmers to cough up 40 percent of the cost," Roberts said.

The ITC is composed of six commissioners, each of whom will have one vote in deciding whether the facts warrant the U.S. imposing a quota or fee on imports of Canadian wheat. The USDA spokesman told the panel the agency recommends imposition of an import contract because Canada is a "key player in world wheat trade." The ITC is required to base its decision on three factors: whether there is a threat of material injury to U.S. industry, whether current and potential U.S. imports are causing material injury and whether the action is consistent with the requirements of the 1974 Trade Act.

New Waste Treatment May Help Hog Producers

Legal objections and other opposition to large-scale hog operations in Iowa, Missouri and other states may be resolved by a new waste treatment device Iowa State University professor Richard Dague says he has patented. The process uses an "antiseptic sequencing batch reactor" containing common sewage bacteria that thrive in a sealed, airless environment. No air means no odors, Dague says.

The USDA has proposed allowing direct marketing of livestock products, such as maple syrup, honey and eggs, during the marketing year. The proposal was designed to help livestock producers take advantage of local markets and to keep consumer dollars within the state.
Farm Bureau Seeks Substitute to Clean Water Act

MFB POSITION
Farm Bureau has been extensively involved in developing the substitute package and supports its enactment.

MFB CONTACT
Al Almy, Ext. 2040

A bipartisan group of congressmen on the Public Works and Transportation Committee have developed a substitute package of amendments to replace H.R. 3948. The substitute package is supported by a broad-based group of interests including agriculture, business, state water agencies, the National Governors' Association, Conference of Mayors, and the National League of Cities.

The substitute eliminates many of the harsh and punitive provisions of H.R. 3948 and establishes a workable approach to non-point source and wetlands policy. Among the key provisions of the substitute are:

• A national goal incorporating the cost/benefit concept.
• Deletion of all references to groundwater in the national goal.

House and Senate Differ on USDA Reform

The Senate has now passed its version of the USDA reorganization bill, and a different version has cleared the House Subcommittee on Departmental Operations. The House bill still must be heard in the Agriculture Committee before it goes to the House floor.

At this point, neither bill conforms to a Farm Bureau policy favoring addition of the Soil Conservation Service to the new Farm Service Agency, says Rob Nooter, director of governmental relations for AFBF.

The Farm Bureau believes oversight of commodity programs and natural resource activities of the department should be carried out by local, county or area committees of elected farmers. Soil Conservation Service should not become a regulatory agency, but should concentrate on providing quality technical assistance, education and scientific expertise on natural resources to farmers and other constituents. The funding for conservation programs should be administered by ASCS, not by the Soil Conservation Service, Nooter said.

"It's our opinion that a Farm Service Agency be established to incorporate ASCS, FMD, agricultural lending programs, federal crop insurance and SCS," Nooter said.

Farmland Definition, H.B. 5329 - Immediate Effect Sought

MFB POSITION
MFB supports the six-mill farmland definition, but continues to seek immediate implementation in both the House and Senate.

MFB CONTACT
Ron Nelson, Ext. 2043

Status Report:
On Thurs., May 5, the Senate considered H.B. 5329. Several substantive amendments were defeated. The bill is awaiting final passage in the Senate before being returned to the House for concurrence.

The bill was reported out of the Senate Agriculture Committee and was debated in the Senate during the first week of May. The Senate Committee stripped two of the House amendments from the bill. One of the amendments removed the current, non-mill definition of farmland, and stated that if a farm were cultivated on a 12-acre lot, it would not qualify for the 6 mills. The second amendment was removed after corporate agriculture and stated that if the corporation had a single business tax liability of greater than $20,000 the land owned by the corporation would not qualify for the 6 mills.

A two-thirds majority vote is required for immediate effect. Following the debates in the Senate, the bill has been returned to the House to concur with the Senate amendments and to give immediate effect.

The bill in its most recent version, after Senate amendments, provides that all farmland classified as farmland for tax purposes will be taxed at 6 mills or, if classified otherwise, 51 percent of the land must be used for agricultural purposes as defined in P.A. 116. In addition, land and forest, which has a Forest Management Plan in place similar to the Commercial Forest Act, would also qualify for the 6 mills.

Proven Farm Tough

Choose from a wide range of standard or custom Lester wood frame buildings. Each features advanced Un-Fram® engineering. Top quality materials. The industry's leading warranty. Call your local Lester Builder or 1-800-285-4439 today.

LESTER BUILDING SYSTEMS
A Division of Butler Manufacturing Company
Quality Since 1901

Almond
T & W Construction, Inc.
(610) 798-6331

Lake Odessa
Tri-County Fab. & Construction
(616) 374-1797

Coldwater
Cole Construction Co.
(517) 278-6697

Alpena
Kalsmazoo
Detroit Construction, Inc.
(313) 575-5942

Newport
Al's Implement
(313) 586-8529

Saginaw
Chains Construction Co.
(517) 770-4910

Sears
Country Equip. Sales, Inc.
(517) 382-5560

West Branch
Miller Construction & Equip.
(517) 345-2499

Maximize your Soybean productivity with ACA Products

Identifiable Performance Parameters on Soybeans

The following are frequently observed plant responses from soil and foliar applications of ACA on soybeans.

Visual Response
• Vigorous early plant growth
• More fibrous and extensive root system
• Easier to till vs. tilled
• Larger diameter stem
• Higher seed weight
• More fibrous and extensive root system
• Reduced lodging
• Improved standability and ease of harvest

Observation Timing (Stage of Growth)
• VE to V3 (Emergence to third trifoliate stage)
• Fuller Canopy
• Yield Information

Postemergence applications to Soybeans (1993)
• 13 total studies • 4.5 bushel per acre increase • 10% increase in yield • Return on ACA investment of $205.52 (60 cents) or $21.84 (20 cents)

Other applications:
• Full bloom
• Beginning at V5 and on
• (Soybeans planted are not PTF or PTL seed)
• $21.84 (20 cents)
• $23.56 (30 cents)
• $27.00 (36 cents)

Foliar Applications
• Foliar application should be applied after V2 to V3
• ACA can be applied to all soybean supporters as a carrier

Methods of Application
• ACA can be applied to the soil or foliage of soybeans. ACA can be injected into-furrow as a pure product or broadcast incorporated into the soil. The broadcast soil application can be in water, with a fertilizer solution, and/or with a soybean herbicide. The incorporation or movement of ACA into the soil profile can be by tillage, rainfall, or irrigation. This will position the ACA near the developing root system of the plant.

Other application methods:
• Soil broadcast applied with a tiller solution
• Soil broadcast applied with dry blended fertilizers
• Soil broadcast applied with seed and feed herbicide/fertilizer solution or dry

Application Procedures
• Application can be made with liquid fertilizers as the carrier

Contact your local Clean Crop Dealer or call 1-800-292-2701 for additional information on THE ACA ADVANTAGE.
Michigan Farm News
May 15, 1994

30-Day Forecast — Warmer and Wetter Than Normal; 90-Day Forecast — Cool and Wet

Michigan Weather Summary

<table>
<thead>
<tr>
<th>4/1/94</th>
<th>4/30/94</th>
<th>Temperature</th>
<th>Precipitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to 5/31</td>
<td>Warm Dev.</td>
<td>Actual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Degree Days</td>
<td>Actual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alpena</td>
<td>43.4</td>
<td>3.0</td>
<td>87</td>
</tr>
<tr>
<td>Bad Axe</td>
<td>45.6</td>
<td>4.0</td>
<td>101</td>
</tr>
<tr>
<td>Detroit</td>
<td>51.4</td>
<td>6.0</td>
<td>175</td>
</tr>
<tr>
<td>Escanaba</td>
<td>36.4</td>
<td>-6.4</td>
<td>132</td>
</tr>
<tr>
<td>Grand Rapids</td>
<td>55.8</td>
<td>9.4</td>
<td>143</td>
</tr>
<tr>
<td>Houghton Lake</td>
<td>44.1</td>
<td>1.2</td>
<td>82</td>
</tr>
<tr>
<td>Jackson</td>
<td>48.8</td>
<td>1.5</td>
<td>148</td>
</tr>
<tr>
<td>Lansing</td>
<td>48.6</td>
<td>-0.2</td>
<td>163</td>
</tr>
<tr>
<td>Marquette</td>
<td>37.7</td>
<td>0.8</td>
<td>43</td>
</tr>
<tr>
<td>Muskegon</td>
<td>45.4</td>
<td>0.1</td>
<td>76</td>
</tr>
<tr>
<td>Pellston</td>
<td>40.5</td>
<td>0.7</td>
<td>52</td>
</tr>
<tr>
<td>Saginaw</td>
<td>47.4</td>
<td>1.9</td>
<td>112</td>
</tr>
<tr>
<td>St. Louis, MI</td>
<td>36.8</td>
<td>-1.2</td>
<td>74</td>
</tr>
<tr>
<td>South Bend</td>
<td>51.5</td>
<td>2.5</td>
<td>187</td>
</tr>
<tr>
<td>Traverse City</td>
<td>44.0</td>
<td>0.1</td>
<td>64</td>
</tr>
<tr>
<td>Vestuburg</td>
<td>45.7</td>
<td>0.0</td>
<td>118</td>
</tr>
</tbody>
</table>

First half of the growing season over Michigan and much of the entire Corn Belt Region. While the cooler and wetter than normal weather pattern is strongly correlated with high yields of summer crops such as much of the Corn Belt (these correlations will certainly be less following the extreme conditions of the summer 1993), this type of weather scenario may lead to maturity problems for some full-season or heat-loving crops here within Michigan (as was the case in 1992).

Wet Weather a Concern for Nitrogen Losses?

With the recent wet spell across most of Michigan, many farmers may be wondering if their spring-applied nitrogen is still there. You are probably experiencing nitrogen losses unless you used a nitrification inhibitor with your application. Nitrification is the process where soil bacteria covert the ammonia to ammonium and then to nitrate, and then to nitrate. Nitrification is the process occurring now as soils begin to warm and are saturated, said Coffin. Under conditions with nitrification inhibitors are being used, certain bacteria are being used to inhibit the process from occurring now as soils begin to warm and are saturated, said Coffin. Under conditions with nitrification inhibition, certain bacteria are under control.

Confusion of Rules on Genetically Altered Foods

The food industry is calling for an end to confusion between state and federal rules concerning labeling of genetically altered foods, according to a release from the Grocery Manufacturers of America. They are calling for Food and Drug Administration Commissioner Dr. David Kessler to immediately step state of proposals that undermine FDA’s leadership on labeling. “We urgently request that FDA take immediate steps to encourage states to follow the federal approach on biotechnology, including labeling issues. Every responsible independent health organization has agreed that milk from cows treated with supplemental BST is safe. The food industry groups agree that milk from BST-treated cows is the same in every way as milk from untreated cows — including safety, composition, taste and nutrition. No additional labeling is necessary,” said Dr. Steve Ziller, GMA’s vice president of science and technology.

Ziller pointed out the peculiarity of manufacturer’s trying to comply with the emerging “patchwork quilt” of state laws that conflict with each other and the FDA. “This is a complex area, requiring the uniformity of approach that only federal oversight can provide,” Ziller said.

Discover the Distinct Advantage!

- 50 Year Protection
Against snow-loading damage to the structure with no wind load weight limit.

- 50 Year Protection
Against decay or insect attack on preservative treated columns and glue-laminated timber framework.

- 10 Year Protection
Against wind load damage to our optical Alumalok® siding due to no wind velocity limit.

- 20 Year Protection
Against rust including damage caused by atmospheric pollutants.

- 5 Year Protection
Against wind load damage to the structure with no wind velocity limit.

- All warrantee includes materials and labor and are not prorated.

800-447-7436
P. O. Box 399, Morton, IL 61550
© 1994 Morton Buildings, Inc.
GET $500 CASH BACK OR $1000 WORTH OF DEWALT TOOLS.

It's looking like another good year for American farmers. First we introduce the new Ram Pickup, "The Truck Of The Year" according to Motor Trend. And now the truck that changes all the rules also comes with a special $500 cash incentive. Available to Farm Bureau members only, on all '94 5.9L Magnum gas and Cummins diesel Ram models. We've added cash back to most '94 mid-size Dakota pickups, too, along with all full-size Ram Vans and Ram Wagons. And your cash back is on top of any other national offer.* Or if you prefer, select up to $1,000 in quality DeWalt tools. All you need is a certificate from your state's Farm Bureau before you see your Dodge dealer. Cash back or DeWalt tools - expect a record harvest.

*This cash back offer is valid for members of participating Farm Bureaus, expires 12/31/94, and may not be used in combination with any other Chrysler Corporation certificate program or certain other special programs. Ask for restrictions and details.

THE NEW DODGE
A DIVISION OF THE CHRYSLER CORPORATION
Market Outlook...

WHEAT

The first of the year's USDA survey based Crop Production Report was released May 10. Check it out -- we will discuss it in the next issue. If it was bullish, it is probably a good time to price some of your 1994 wheat crop.

It will not be long before the size of the U.S. wheat crop becomes clear, so take advantage of pricing opportunities now. Or we may be holding our wheat for a December rally, which means some significant storage costs.

SOYBEANS

The soybean market has made a little comeback like corn. The questions are the same: what are the odds of a rally and how much should we price at various levels? The odds are there will be some significant rallies over the next two months. However, it will be tempered by the large South American supplies, high U.S. planted acres and demand questions.

There are good odds that July soybeans futures will trade over $6.85 several times over the next two months. There are not very high odds that they will trade over the previous high of $7.50 in that same period.

CORN

As of the first of May, the markets had made a small but significant turn around from the downward trend we have seen over the past several months. The pricing decisions over the next two months will be critical for those with much old or new crop still unpriced. One needs to set some pricing goals based on the July and December corn futures contracts. You also need to determine how much you will price each time you reach the goals.

Based on the fundamentals and the risk left in the growing season, there are pretty good odds that July corn futures will trade over $2.80, but there are not very high odds of it trading over $3. For the December new crop futures, there are pretty good odds it will trade over $2.65, but not very high odds it will trade over $3. These are some ranges you could base your pricing decisions on. Remember to price into an up market.

Old crop basis is tight, but the market says it will pay 4 cents to hold from May until July. I think it is time to have most unpriced old corn (and all off-farm) on paper rather than in the bin. You can do this with a basic contract or an MPC. The new crop basis being offered is in the normal range, but on the wide side. As you price new crop on rallies, consider an H-T-A versus a forward contract if they are offering a weak basis.

It appears 1993-94 exports will reach expectations, so 1993-94 use is pretty much known. The 1994-95 use figure still has a lot of unknowns. The former USSR region will probably have a smaller crop, but will they have any money to pay for it?

The market has factored in some fairly high feed use this summer, but it will not take much of a wheat rally to knock that down. These questions will all be trading in the market along with the weather news. Set goals and be ready to move.

CATTLE

It is pretty clear there's a lot of meat around, and while demand seems fairly strong, supply numbers seem to be overwhelming the situation. Beef production in March was huge, up 8 percent from the previous year. Slaughter numbers and weights in April indicate production will be up significantly. The Cold Storage Report shows beef stocks are up. And all of that is before we discuss the Cattle-On-Fed Reports.

Both the quarterly 13-State and the monthly 7-State Cattle-On-Fed Reports showed 2 percent more cattle in feedlots on April 1, 1994, than we had a year ago. We placed the same number in both the first quarter and in March as last year. Marketings for the January-March period were up

HOGS

Where are all the hogs coming from? The latest Hogs and Pigs Report indicated that production would be down about 4 percent at this time and we have been running even to higher than expected.

While things can change quickly, the higher than expected recent production has still put a lot of pressure on the future markets out through the summer. But despite this, the market should make the typical seasonal price increase soon.

The problem is that we are now starting from a lower level than we thought we would be at. I wouldn't hold back ready hogs to try and get the seasonal increase, but I wouldn't be sending them early either.

DAIRY OUTLOOK

Dr. Larry G. Hamm, Dept. of Agricultural Economics, MSU

The dairy product markets have broken out of their winter pattern and are moving like a spring storm. Both cheese and butter markets have weakened recently, meaning that farm pay prices will start to fall by June.

After holding steady for a month, cheddar cheese prices on the National Cheese Exchange (NCE) fell the last two weeks in April. The price of 450-pound blocks peaked at $1.3975 per pound on April 15. After a $.005 drop on April 22, the price dropped $.04 on April 29. The combined drop of $.045 translates roughly into a $.45 per ewt. $.005 drop on April 22, the price dropped at $1.3975 per pound on April 15. After a spring storm. Both cheese and butter marked markets have weakened recently, meaning that farm pay prices will start to fall by June.

After holding steady for a month, cheddar cheese prices on the National Cheese Exchange (NCE) fell the last two weeks in April. The price of 450-pound blocks peaked at $1.3975 per pound on April 15. After a $.005 drop on April 22, the price dropped $.04 on April 29. The combined drop of $.045 translates roughly into a $.45 per ewt. $.005 drop on April 22, the price dropped at $1.3975 per pound on April 15. After a spring storm. Both cheese and butter marked markets have weakened recently, meaning that farm pay prices will start to fall by June.

Meat prices have to move because of the difference between the choose futures market and the cash market on the NCE. On April 21, the futures market cheese price for May was $1.3425, while the cash price, as measured by the NCE, was $1.3975. As futures contracts expire, the cash and future prices have to move toward each other until they are the same.

On Friday, April 22, the futures price went up $.009 per pound, while the NCE price went up $.03. I have hopes that the futures market would continue to move up faster than the cash price, because both cheese and butter markets have weakened recently, meaning that farm pay prices will start to fall by June.

After holding steady for a month, cheddar cheese prices on the National Cheese Exchange (NCE) fell the last two weeks in April. The price of 450-pound blocks peaked at $1.3975 per pound on April 15. After a $.005 drop on April 22, the price dropped $.04 on April 29. The combined drop of $.045 translates roughly into a $.45 per ewt. drop in the farm pay price later this spring. On April 29, the wholesale butter price on the Chicago Mercantile Exchange also dropped by $.01 per pound.

Cheese prices had to move because of the difference between the choose futures market and the cash market on the NCE. On April 21, the futures market cheese price for May was $1.3425, while the cash price, as measured by the NCE, was $1.3975. As futures contracts expire, the cash and future prices have to move toward each other until they are the same.

On Friday, April 22, the futures price went up $.009 per pound, while the NCE price went up $.03. I have hopes that the futures market would continue to move up faster than the cash price, because both cheese and butter markets have weakened recently, meaning that farm pay prices will start to fall by June.

After holding steady for a month, cheddar cheese prices on the National Cheese Exchange (NCE) fell the last two weeks in April. The price of 450-pound blocks peaked at $1.3975 per pound on April 15. After a $.005 drop on April 22, the price dropped $.04 on April 29. The combined drop of $.045 translates roughly into a $.45 per ewt. drop in the farm pay price later this spring. On April 29, the wholesale butter price on the Chicago Mercantile Exchange also dropped by $.01 per pound.

Cheese prices had to move because of the difference between the choose futures market and the cash market on the NCE. On April 21, the futures market cheese price for May was $1.3425, while the cash price, as measured by the NCE, was $1.3975. As futures contracts expire, the cash and future prices have to move toward each other until they are the same.

On Friday, April 22, the futures price went up $.009 per pound, while the NCE price went up $.03. I have hopes that the futures market would continue to move up faster than the cash price, because both cheese and butter markets have weakened recently, meaning that farm pay prices will start to fall by June.

After holding steady for a month, cheddar cheese prices on the National Cheese Exchange (NCE) fell the last two weeks in April. The price of 450-pound blocks peaked at $1.3975 per pound on April 15. After a $.005 drop on April 22, the price dropped $.04 on April 29. The combined drop of $.045 translates roughly into a $.45 per ewt. drop in the farm pay price later this spring. On April 29, the wholesale butter price on the Chicago Mercantile Exchange also dropped by $.01 per pound.

Cheese prices had to move because of the difference between the choose futures market and the cash market on the NCE. On April 21, the futures market cheese price for May was $1.3425, while the cash price, as measured by the NCE, was $1.3975. As futures contracts expire, the cash and future prices have to move toward each other until they are the same.

On Friday, April 22, the futures price went up $.009 per pound, while the NCE price went up $.03. I have hopes that the futures market would continue to move up faster than the cash price, because both cheese and butter markets have weakened recently, meaning that farm pay prices will start to fall by June. But despite this, the market should make the typical seasonal price increase soon.

The problem is that we are now starting from a lower level than we thought we would be at. I wouldn't hold back ready hogs to try and get the seasonal increase, but I wouldn't be sending them early either.

New crop November soybean futures will likely trade over $6.40 at some point this summer, but aren't likely to trade over $7.00. Set pricing goals using these ranges as a base and how much you will price each time the futures reaches your next goal.

Old crop soybean basis is tight. As I have been saying for a while, don't be storing beans. Use a basis contract, a call option, or a minimum price contract to stay in the market. On the other hand, new crop basis being offered are weak. Consider using a hedge, hedge to arrive, or put-options to lock in new crop pricing goals.
Custom Work Rates in Michigan

By Gerald D. Schwab and Marcelo E. Slles, Department of Agricultural Economics, Michigan State University

Provision and utilization of custom work services often elicits the question "What is a fair charge?" or "How much should I pay?" Some assistance in answering these questions is presented below. As stated in the mail survey questionnaire used to gather these data in Fall 1992, all charges except the service is being provided by someone who has excess machinery capacity and wishes to turn over his/her own farm income.

The data presented are actual cost data reported and are not necessarily recommended rates. Actual rates reported may not always be reflective of the total cost of the service. This situation can occur because the service is being provided by someone who has excess machinery capacity and views custom work as supplemental to his/her own farm income.

Market Outlook...continued from page 6

EGGS

Dr. Henry Larzelle, Dept. of Agricultural Economics, MSU

Egg prices at the end of April were about 10 cents a dozen below a year earlier. Feeder ingredient prices were 2-1/2 cents per dozen eggs above last year.

Wholesale prices in New York for Grade A large eggs in cartons averaged about 65 cents a dozen in April. May and June prices are expected to average in the low 60s. July, August and September prices will probably average in the upper 60s. September prices will likely be about 70 cents a dozen, the first month in a long while that prices will be above year earlier levels.

The total flock size and total table egg production on the Michigan farms were down 7 percent from last year. The total flock size and total table egg production on the Michigan farms were down 7 percent from last year.

The data presented are actual cost data reported and are not necessarily recommended rates. Actual rates reported may not always be reflective of the total cost of the service. This situation can occur because the service is being provided by someone who has excess machinery capacity and views custom work as supplemental to his/her own farm income.
Michigan's fruit and vegetable associations have pledged $66,000 to Michigan State University to improve and broaden integrated pest management (IPM) practices throughout Michigan.

The presentation was made April 11 by Phil Konon of the Michigan Cherry Committee to Fred Poston, dean of the College of Agriculture and Natural Resources (CANR).

The money will be used to bolster IPM research that will reduce pesticide use in fruit and vegetable production. MSU will soon hire an IPM coordinator and a fruit and vegetable IPM program associate to direct and coordinate research and education.

The funding was provided through the Michigan IPM Alliance, which will continue to make cash contributions to MSU IPM activities for the next three years, possibly longer, depending on membership contributions.

Alliance members are the Michigan Department of Agriculture, the Michigan Cherry Committee, the Michigan Potato Industry Commission, the Michigan Apple Committee, Gerber Products Company, the Michigan Blueberry Growers Association, the Michigan Asparagus Advisory Board, the National Grape Cooperative, the Potato Growers of Michigan, Comstock Michigan Fruit Canners, the Michigan Vegetable Council, the Michigan Onion Committee, the Michigan Plum Advisory Board, the Michigan Carrot Growers, the Michigan Pickle Growers, the Michigan Celery Promotion Cooperative and the Michigan Pear Research Committee.
Dairy Self-Help Debate Continues in House Ag Subcommittee

Discussions to restructure the dairy price support program are continuing within the livestock subcommittee of the House Agriculture Committee. With the strong encouragement of subcommittee Chairman Harold Volkmer (D-Mo.), members of the committee are seeking a consensus until now has eluded the dairy industry.

The continuing erosion of federal financial support for the dairy program and the severe price fluctuations resulting from small amounts of surplus production have producers and lawmakers calling for an overhaul of the current program.

Various proposals for industry "self-help" are being discussed. Most of the proposals would create a USDA-sanctioned industry board to manage, by a process of surplus production primarily in export markets. The export program would be funded by creating a government, mandatory, or voluntary dairy export pool or with producer assessments.

Researcher Named to MSU Meadows Endowed Dairy Chair

After a one and one-half year national search, the Clinton E. Meadows Endowed Chair for Dairy Cattle Management has been filled.

David K. Beede, professor of dairy nutrition and management in the Dairy Science Department at the University of Florida, will take over the position in September.

Beede's areas of expertise include nutritional management of dairy cattle in warm climates, environmental management and modifications to enhance productivity in warm climates, nutritional physiology as related to heat-stressed and high-producing dairy cattle, macromineral nutrition and metabolism, management and nutrition of dry pregnant dairy cows, and production-economic information and analysis for optimal production and financial management and decision making.

"I'm very excited that Dr. Beede has accepted the position," said Maynard Hugberg, chairperson of the Department of Animal Science. "He brings a broad dimension of understanding to our dairy research and has a good understanding of the environmental issues involved in the dairy industry. He's a consensus builder and will integrate well with both the faculty members and industry representatives.

Beede is the author of 11 book chapters, 36 refereed scientific papers, four monographs, 63 scientific abstracts, 46 proceedings publications and 18 popular articles. He acts as a consultant in dairy herd management and nutrition in Australia, Mexico, Venezuela, South Africa, Canada, Scotland, Norway, Sweden, Spain, the Persian Gulf area and Thailand, as well as the United States.

Beede received his bachelor's degree in animal science from Colorado State University in 1973, his master's degree in ruminant nutrition from the University of Nebraska in 1975, and his doctorate in ruminant production physiology and biochemistry from the University of Kentucky in 1980.

The endowed chair was created in recognition of Clinton Meadows' distinguished 23-year career at MSU. His research focused on dairy cattle management, especially on improving the genetic quality of dairy cattle. The purposes of the Meadows chair are to develop new management information through research, provide up-to-date and recent management information to dairy producers through extension publications and activities, and educate students in dairy cattle management for employment at all levels in the dairy production industry.

Refunds to Dairy Producers Who Held Down Sales on Their Way

Milk producers who did not increase their 1993 milk marketings compared to their 1992 sales received refunds totaling more than $80 million in connection with their calendar year 1993 milk marketing assessments, according to Grant Bustock, executive vice president of the USDA's Commodity Credit Corporation.

Under Section 204 of the Agricultural Act of 1949, as amended by the Omnibus Budget Reconciliation Act of 1990, producers were required to pay an assessment on all milk they sold in 1991.

Some observers believe that budget pressure and inadequate dairy farm income could create the avenue for action.

"APFB is supportive of dairy farmers' efforts to truly help themselves," said Richard Newphier, executive director of the American Farm Bureau Federation's Washington office. "We must be sure that any program adopted is GATT-legal, positively impacts producer income, reduces or eliminates budget reconciliation assessments and has a board elected by and made up of producers.

While you're busy farming, Farm Bureau is on the job in Lansing and Washington, D.C. protecting your interests. Our experienced and highly respected team of lobbyists are working for you.

With the thousands of bills introduced on the state and federal level, Farm Bureau lobbyists work full-time attempting to support legislation that benefits farm families while seeking to defeat measures detrimental to agriculture.

Farm Bureau – always there and proven effective...

In the halls of Congress and in the Michigan Legislature, Farm Bureau is respected as the voice of agriculture. It's a grassroots organization with responsible legislative clout, powered by its members and guided by its farmer-developed policies. With over seven decades of experience in the legislative and regulatory arenas, you can count on Farm Bureau to get results!

Farm Bureau member benefits include:
- Educational and leadership opportunities
- Health care insurance
- Travel program
- Discount prescription drugs
- No fee VISA card
- Farm, auto and life insurance

What concerns you concerns us.

For your nearest Farm Bureau office call 1(800) 292-2680 extension 3237
**Making Business A Pleasure.**

At Alamo, we want to make every rental a pleasure. Now you can enjoy $10 OFF any rental of three days or more. Or $20 OFF an upgrade on rentals of two days or more with Alamo’s Association Program. And as always, you’ll get unlimited free mileage on every rental in the U.S. In addition, you’ll receive frequent flyer mileage credits with Alamo, Delta, Hawaiian, United and USAir. Alamo features a fine fleet of General Motors cars and all locations are company-owned and operated nationwide to ensure a uniform standard of quality.

As a member, you’ll receive other valuable coupons throughout the year that will save you money on each rental. So choose your offer and enjoy one less worry on your next business trip. For member reservations call your Professional Travel Agent or Alamo’s Membership line at 1-800-354-2322.

**$10 OFF A RENTAL**
- Certificate is valid for $10 OFF rental.
- Valid on economy through luxury car category.
- Offer valid on rentals of 3 to 28 days.
- Only one certificate per rental, not to be used in conjunction with any other certificate.
- Certificate must be presented at the Alamo counter at time of arrival.
- This certificate is redeemable at all locations in the United States only. Once redeemed, this certificate is null and void.
- Maximum value of this certificate which may be applied toward the basic rate of one rental is $10 off.
- The basic rate does not include taxes and other optional items. No refund will be given on any unused portion of certificate.
- Certificate is not redeemable for cash.
- This certificate and the car rental purchase is subject to availability, subject to Alamo’s conditions at time of rental.
- A 24-hour advance reservation is required.
- Reservations are subject to availability at time of rental.
- Offer valid through 07/02/94.

**$20 OFF AN UPGRADE**
- Certificate is valid for $20 OFF upgrade charge.
- Offer valid on rentals of 2 to 28 days.
- Only one certificate per rental, not to be used in conjunction with any other certificate.
- Certificate must be presented at the Alamo counter at time of arrival.
- This certificate is redeemable at all Alamos in the United States only. Once redeemed, this certificate is null and void.
- The maximum value of this certificate which may be applied toward the basic rate of one rental is $20 off. Not valid on tax and mileage. Not valid on any senior citizen or military program.
- Certificate is not redeemable for cash.
- This certificate and the car rental purchase is subject to availability, subject to Alamo’s conditions at time of rental.
- A 24-hour advance reservation is required.
- Reservations are subject to availability at time of rental.
- Offer valid through 07/02/94.

**D61B**
- Offer valid through 05/31/94.
- 50/50 off 29/94, 30/94/95, 05/26/94-05/28/94 and 06/01/94-07/12/94.
- For reservations call your Professional Travel Agent or call Alamo at 1-800-354-2322.

**U22B**
- Offer valid through 05/31/94.
- 50/50 off 29/94, 30/94/95, 05/26/94-05/28/94 and 06/01/94-07/12/94.
- For reservations call your Professional Travel Agent or call Alamo at 1-800-354-2322.
set at three-quarters of one percent of the regis-
trant’s wholesale price.

"Your retail invoice may indicate that a por-
tion of the prices shown go to the Groundwater
Protection Act..." says that farmers may see groundwater protec-
tion fees charged on non-nitrogen fertilizers. Monies col-
culated by these fees will be used to address
"Groundwater Stewardship Practices."

MDA will be working with the Soil Conser-
vation Service and MSU Extension to provide
education, technical assistance and cost-share
programs for farmers wishing to voluntarily im-
plement "Groundwater Stewardship Practices."

"The Pattern Check makes it easy to see if
there’s a problem with distribution." As

Environmental Stewardship

Maximize your Corn productivity with

ACa on Corn

Since its introduction, ACA has demonstrated its ability to enhance plant vigor and help
the plant overcome environmental stress during plant development. Seed tolerance
studies have shown that ACA-treated plants are completely safe to germinating corn seeds when
placed in direct contact with the corn seed in-furrow.

Identifiable Performance Parameters on Corn

The following are frequently observed plant responses from soil applications of ACA on corn.

Visual Response

• Vigorous early plant growth
• More turgid and extensive root system
• Heavier ear and kernel weight
• Grain dries down quicker
• Maturity (Harvest)
• Taller plant
• Larger diameter stalk
• Increased moisture content
• Increased uptake of soil moisture
• Increased uptake of soil nutrients
• Improved standability and ease of
      harvest
• Reduced grain rot at harvest
• Reduced yield loss from disease

Observation Timing (Stage of Growth)

• V6 to V13
• V12 to maturity
• V12 to tasseling
• V17 to maturity
• V3 leaf
• Late 10 days after silking

Yield Information Field Corn (1993)

• 57 total studies
• 6.9 bushel per acre increase • 5.8% increase in yield
• Return on ACA investment of $12.00 (1/2 pint per acre) • $10.37 (2 pint per acre)
• V12 yield of ACA at $1.98/bushel (2 pint per acre) • $1.76/bushel (2 pint per acre) • $1.53/bushel (2 pint per acre) • $1.57/bushel (2 pint per acre)

Yield increase on field corn = 6.9 bushel increase/acre

Application Techniques/Procedures

Test results have shown that ACA works best injected as a pure product in-furrow, or when the fertilizer that contains ACA is either injected or incorporated into the soil prior to, or soon after planting. The incorporation of movement of ACA into the soil profile can be by tillage, rainfall, or irrigation. This positions the ACA near the developing root system of the plant.

Methods of Application

• ACA mixes easily with and fits into the following fertilizer programs:
  • Anhydrous ammonia
  • Nitrogen solutions
  • Mixed liquid starter fertilizers
  • Dry blended broadcast or starter fertilizers
  • Soil applied (seed & seed herbicide/fertilizer solutions or dry)

Other application methods:

• Soil applied broadcast with water as the carrier, or without a herbicide
• Direct injection of undiluted ACA in-furrow

Application Rates

For in-furrow injection or banded (2" to side and 2" down), apply ACA at 5.33 to 8 fluid ounces (1/2 to 1 pint) per acre. Field studies of banded or
in-furrow applications have shown consistent results at the 1.2 pint per acre rate. The rate for broadcast application is 10.66 fluid ounces (2 pint per acre).

The rate of addition of ACA to anhydrous ammonia is one
8-gallon drum of anhydrous ammonia. This
represents a complete solution, with 0.534 fluid ounces of
ACA per pound of
anhydrous ammonia. This
represents 6.9 bushel increase/acre • $1.53 - ACA investment
of $1.57/bushel (2 pint per acre)

The rate of addition of ACA to anhydrous ammonia is one
8-gallon drum of anhydrous ammonia. This
represents a complete solution, with 0.534 fluid ounces of
ACA per pound of
anhydrous ammonia. This
represents 6.9 bushel increase/acre • $1.53 - ACA investment
of $1.57/bushel (2 pint per acre)

Contact your local
Clean Crop Dealer or
call 1-800-236-2701
for technical information
on THE ACA ADVANTAGE
Historic Herbicide Registration Agreement

Model for the future?

The U.S. Environmental Protection Agency (EPA) and two crop protection companies, Monsanto Company and Zeneca, Inc., have struck an historic agreement to allow registration of the herbicide acetochlor.

**Registration Conditions**

The registration of the new corn herbicide is the first to carry a number of unprecedented conditions. If any of the following conditions of registration are not met, registration of acetochlor will be canceled:

- At the end of 18 months from the date of registration, the product must result in the reduction of 4 million pounds of the corn herbicides alachlor, metolachlor, atrazine, EPTC, butylate, and 2,4-D.

- Automatic suspension of all use of acetochlor if residues of the herbicide are found in groundwater exceeding certain specified levels.

**Additional Measures**

Preventative measures and monitoring programs are also built into the conditions announced by EPA. For instance, the use of the herbicide is restricted to certified applicators and by types of soil. Aerial application of the new herbicide is prohibited. Monsanto and Zeneca will fund surface and groundwater monitoring programs in seven states (Illinois, Indiana, Louisiana, Kansas, Minnesota, Nebraska and Wisconsin). The monitoring programs will be conducted by an independent market research firm.

**EPA Comments**

An EPA document on the registration agreement states: "Through this decision, the agency is implementing stringent standards for the registration of pesticides and industry is demonstrating its willingness to implement measures to meet environmental standards."

EPA says it will consider the restrictions placed on acetochlor in determining the eligibility of corn herbicides for re-registration of toxically similar active ingredients.

**Ray Ramsey Joins Michigan Live Stock Exchange**

Ray Ramsey has joined the staff of the Michigan Live Stock Exchange (MLE) as the new vice president of corporate development. He will be coordinating programs between Michigan Live Stock Exchange and affiliated companies with specific emphasis on new regions and working closely with the newest members of the "521-Cooperative" throughout Indiana.

Ramsey brings an extensive background in ag marketing to MLE. He formerly worked for 13 years with Pitman-Moore where he was senior sales representative in Indiana, Illinois, Ohio and Michigan. He graduated from Purdue University in 1981 with a bachelor of science degree in agriculture economics/animal science.

**Technology Brings a Lower Fat Chip and French Fry**

Soon you may not need an excuse to eat another french fry or potato chip, thanks to a new starchier potato developed by Michigan Agricultural Experiment Station Scientist Jack Preiss. This new potato can be more nutritious than other potatoes and, says Preiss, "has a greater potato taste."

Preiss has used biotechnology, the process of manipulating genetic material in living organisms, to improve potatoes and other vegetables. By taking a gene used to control starch production in bacteria and inserting it into plants, Preiss has been able to increase the amount of starch stored and produced by certain plants.

Chips or fries made from the new, starchier potato will be lower in fat. Potatoes are composed mostly of starch and water, Preiss explains. When a potato chip or french fry is fried, oil displaces the water and the fat content increases. A starchier potato contains less water to be displaced by the oil. "Because it has less water, it takes up less fat," Preiss says.

In fact, we could put on a label that says "50 percent less fat," Preiss says.

The new potato won’t be ready for the market in chips or fries until 1999 or 2000, after two sets of USDA and FDA testing and approval.
More Than Just Golf Courses: Michigan State University's Turfgrass Management Program

By Karen Geiger

Michigan State University leads the nation in innovative uses of turfgrass. The new turf design for the World Cup Soccer Tournament playing field is the most recent development of MSU's Turfgrass Management Program.

The Department of Crop and Soil Science's turfgrass program has a teaching staff that focuses on the professional and knowledge needed for careers in turfgrass management. Many turf graduate students consider MSU to have the best program in the country. The course of study is backed by a teaching program featuring a large number of turfgrass experts in comparison to universities with similar programs.

The turfgrass program is broken up into three areas. The four-year program centers on the science of turf. This involves studying the physiology and maintenance of turf-grass, and the requirements of proper turf management including fertility and weed control. The turfgrass program focuses on learning through work experience as well as class study. This program boasts a 100 percent graduate placement record, with career ranging from golf course supervision to research in turfgrasses.

I was well-prepared for work experience at MSU. Turfgrass management is something that affects the environment. Turfgrass programs educate turfgrass students about all aspects of turf-grass, which in many cases pay a field permanent.

The second of the two options is athletic field management. Athletic field management is a science and an art, says David Glispie, Turfgrass Management two-year program. The two-year program enroll a total of 98 students, and focuses on the educational aspects of athletic field management. Athletic field managerial is one of the few professions that focus on the landscape, horticultural and business skills involved in lawn care. This option includes on-the-job training within a sports franchise, which in many cases will pay a field permanent.

The area of turfgrass is one of many affected by the program focuses on learning through work experience as well as class study. This program boasts a 100 percent graduate placement record, with career ranging from golf course supervision to research in turfgrasses.

I was well-prepared for work experience at MSU. Turfgrass management is something that affects the environment. Turfgrass programs educate turfgrass students about all aspects of turf-grass, which in many cases pay a field permanent.

For more information about the MSU Turfgrass Program, contact the Michigan State University Department of Crop and Soil Science at (517) 355-6271 or visit the MSU Extension Service.
**Michigan Farm News Classifieds**

**1. Farm Machinery**

- **1966 FORD F-600 with grain trailer, 30 ft. cylinder, $6,500. Call 1-517-626-6355 between 7-10pm.**

- **$ WOOD BALE kicker wagon, 7hp, $700 or all for $2750. Also, have approximately 15 other pieces of equipment. Call for sale! 1-517-934-5076.**

- **DEUTZ RIGIDACTION engine for sale, 6 cylinder with Butterfield pump, approximately 5,000 hours of use. C $4000.00, 3200 LP, Rammler 600 M Staging box. Call 1-517-764-4669.**

**5. Livestock**

- **NEW AND USED irrigation and manure spreading equipment. Pumps, trailers, agitation vessels, and acquisition pipe. For listing. We deliver! Plummer Supply, Inc. 1-800-643-7271.**

- **RAIN CONTROL**

  - Manure, dip and sprayer irrigation systems. New and used available. For free product catalog, contact us at 1-517-692-8226.

**8. Ponies/Horses**

- **LEATHER PIPING Miller, 9700 full scale, Jl 9900 forge harvester, 3 head, New Holland blowers, 321. New Idea 325, 20'com picker. JD 1600, 20'hyd swing. 1-517-259-8563.**

- **BREEDERS YOUTH stock bull. Full type, suitable to 5 cows or calves. Requiring big four wheels to pull 7 with. Asking $2000. Call 1-517-278-4300.**

- **Two 97'S GEHL forage wagons for sale. Used very little. Like new condition! Asking $5200 each. Call 1-517-875-2262 or 1-517-875-5457.**

**10. Livestock Equipment**

- **USED VALLEY CENTER livestock. Full type, suitable to 5 cows or calves. Requiring big four wheels to pull 7 with. Asking $2000. Call 1-517-278-4300.**

**11. Agricultural Services**

- **BORDNER ANGUS FARMS**

  - TOTALY ANGUS BREDING STOCK. Government tested! Also available for $2000 each. Call 1-517-734-3005.

**12. Business Services**

- **ANGUS BULLS**

  - Schreiber Farms, since 1954. 1-517-647-9069.

**13. Estate Sales**

- **FOR SALE: Registered Poland China Hog. 2092 for sale. Call 1-517-336-1390.**

**14. Real Estate**

- **FOR SALE: 1986 34'6" Sprayer. 350 gallon hydraulic, 20' boom. $2900. Call 1-517-336-1390.**

**15. Estate Sales**

- **BORDNER ANGUS FARMS**

  - TOTALY ANGUS BREDING STOCK. Government tested! Also available for $2000 each. Call 1-517-734-3005.

**16. Estate Sales**

- **PREFUR EDIBLE stock (Hampshire and 1-F) for sale. Call 1-517-647-9069.**

**17. Auditions**

- **Manure, dip and sprayer irrigation systems. New and used available. For free product catalog, contact us at 1-517-692-8226.**

**18. Antiques/Collectibles**

- **MARSHALL 54" Combine, wide front loader with 6" bucket. Includes 324 comb, 12" hay pickup, 12- row haying bed, 2-row. Used on 90% sown, 10% grain. Commercial combine, Model 510. Also one for parts. 1-619-637-1728.**

**19. Business Opportunities**

- **HI-BED CULTIVATOR, spring and row with rolling shields, $200, CR, JD row hyd 6' 300. OW. Stor Stililita twin speaker, with 22' booms, $1200. Border 6 knife planter winds, hay heads, $300. Ferguson 3-point PTO raise, $250. Unverthorst 2 ton fertilizer spreader, 14 load, $1400. Call 1-516-258-6216 anytime or leave message.**

**20. Construction**

- **FOR SALE: 1979 F-250 super cab with topper. $4,500 John Deere elevator, 9'6" Builders elevator. Injection Cyclon 406 8 row corn planter with liquid fertilizer. FD-26 16-4040 of 12.**

**21. Construction**

- **FOR SALE: Friday shaver double inclined trash stuffer, $2000. Call 1-516-634-2710.**

**22. Construction**

- **H & B 15x6 wheel base Jake on Kohl gear. Very nice setup! $1000. Seven bales of good grain and hay. 8'6" wide. Call 1-616-636-8449.**

**23. Construction**

- **IH 710 4X14 ON LAND FLOW, model 377. New Holland blower, Gah model 90 grain mixers, 3000 PTO, 8'6" IH Cyclo-planter. 1-517-875-6268.**

**24. Construction**

- **JOY BOSSMAN PLANTER**

  - Wide grid, 12-12-12 fertilizer and 12-12-12 grain. Also 3 units, 20" rows, adjustable no 10 coulters, 6-wheel seed box. Good condition! Minneapolis, MI. 1-810-727-9639.

**25. Construction**

- **JD SPRAYER: 350 gallon tank, 30' boom, PTO distributed, quick-attach. Self aligning roost capes. Variety of tips and nozzles. Memphis, MI. 1-810-727-4633.**

**26. Construction**

- **LILLIBURN BEAN Combine. 3-750 in 5-1000 HP, 328 vane attached speed. Works great! All spare parts included. Totally reconditioned last season. Excellent quality, producing machine. Call 1-517-292-2110. Ask for Lor or Greg.**

**27. Construction**

- **MASSEY-FERGUSON, 110 manure spreader. Like new! $1100. Call 1-517-7904-206 after 6pm.**

**28. Construction**

- **Circa 1966 in 4600 States of Michigan.**

---

**FREE!**

 Deadline for next issue is May 20, 1994

Call 1-800-968-3129 to Place Your Classified Ad Today!

or use the coupon below and mail your classified ad to Michigan Farm News

**Run your classified ad for 2 issues, get your third issue!**

**Classified Ad Codes**

- **1. Farm Machinery**
- **2. Livestock Equipment**
- **3. Farm Commodities**
- **4. Seeds**
- **5. Livestock**
- **6. Poultry**
- **7. Dogs and Puppies**
- **8. Ponies/Horses**
- **9. Help Wanted**
- **10. Livestock Equipment**
- **11. Agricultural Services**
- **12. Business Services**
- **13. Estate Sales**
- **14. Real Estate**
- **15. Estate Sales**
- **16. Estate Sales**
- **17. Auditions**
- **18. Antiques/Collectibles**
- **19. Business Opportunities**
- **20. Construction**
- **21. Construction**
- **22. Construction**
- **23. Construction**
- **24. Construction**
- **25. Construction**
- **26. Construction**
- **27. Construction**
- **28. Construction**

---

**Michigan Farm News**

May 15, 1994

---

**Circulation over 46,000 in State of Michigan.**
Michigan Farm News

Dog and Puppies

BOUVIER des FLANDRES: AKC registered. Father is imported from Van Hogenhorn-Kennels. Mother is imported from Proctor-Kennels. Two females, one male. They are old, Ready to leave, $500 each. Beautiful puppies. Call 1-313-439-1744.

WEST MICHIGAN BARN RESTORATION: We repair or replace foundations of all kinds, roofs, floors, beams, siding, and doors. Structural painting and painting. Sunday 9 a.m. Call 1-616-624-4515.

Michigan Farm News

Business Opportunities

UNIQUE BUSINESS OPPORTUNITY GRAND TRAVERSE AREA. Sun City, Traverse City commercial grower of organic northern Michigan. Grown indoors year around hydroponically. As one of a kind business has tremendous growth potential. Includes building equipment and inventory. Could also be moved to your facility. 1986-264-8512.


10 ACRES IRISH HILLS: Rolling water frontage, pond, driveway, chol. $25,000 each. Terms 1/4-9/11, 12, 17, 16. Faust Real Estate 517-265-8666.

BEAUTIFUL ACRES, north of Howell, Byron School. Older farm home, open floor plan, needs updating. Two out buildings, 32x70 pond, tile, 3 fireplaces. Laura, 313-259-2913 or Tom, 517-349-8156.

ACRE WAREHOUSE NURSERY: grows of ornamental grass, trees, shrubs, conifers, etc. Includes house, barn, 15 poly houses, equipment, nursery stock, marketing, Ternal Great location! Southwest Michigan for 27 years, major highway, large cities nearby. Appointment to see home grows on trees. Michigan Farm Name Nursery Business, P.O. Box 85, Stevensville, 1986.

HYBRID AUSTRALIAN WATTLE: Great hybrid for windbreaks, disease resistant trees, tolerant to air pollution and salt. Large, light green foliage. Plants can be transplanted to your yard. 1-800-349-1990.

INTRODUCING AVON LASH EXTENSIONS! Average $4-$14 hourly selling at home. 1-800-742-4738.

109 ACRES, Ionia County. 71 acre farm, house, garage, 2 large steel sided pole barns (formerly a hog barn), equipment yard. Asking $159,000. Thede/ham Real Estate 1-616-754-2261.

BEDLAM, MICHIGAN, Ionia County. 71 acre farm, house, garage, 2 large steel sided pole barns (formerly a hog barn), Amish dairy. Asking $159,000. Thede/ham Real Estate 1-616-754-2261.


10 ACRES, IRISH HILLS, Lake St. Clair area. 1-616-796-2284.

1212 North, Monroe, MI 48162.

20 SPECIAL EVENTS

19 General

19 General

19 General

Michigan Farm News

Kansas City, MO 64111

Call May 15, 1994

Taylor WATERSTOVE

This is the safest, most effi-

cient wood heat system on

the market today.

- Sat Cooking
- Non-Pressurized
- Provides 100% of house-

hold heat and hot water

- Stainless Steel Elimi-

nates Corrosion
- UT Listed
- Thermostatic Control

12 to 24 hr. Burn Time

T&T Sales

2428 W. Saginaw Road

Bentley, MI 48613

(517) 846-1000

Day or Evening

May 15, 1994

T&E

For Display Ad

Call 1-800-292-2680

Information

Ext. 3201

CUT YOUR PRESCRIPTION COSTS

Enjoy substantial savings on over 5,000 of the most
popular name brand prescriptions, non-prescriptions,
vitamins, and medical supplies. Plus, save even more when you order generic equivalents!

Heartland/Feld Drug has been serving Rural
Americans for over 30 years.

To get your FREE Discount Pharmacy Catalog
Call Toll-Free 1-800-228-3353

Why Pay More?

Michigan Farm News

FARMER'S ANTIQUE TRACTOR AND ENGINE ASSOCIATION SPRING SHOW, June 10-12, 1994 at Old Rome Farm Museum, 3000 Founder Road, Acton, MI 49221. 1-517-436-3029.

SPECIAL EVENTS

FINANCING

CALL HOME RELIANCE

Lending Specialist Live 24 HOURS. Cash in 7 days. 

Bankruptcy OK.

Call 866-1509

(616 area only)

or 1-800-286-3243.

1-517-436-3029.

TROYVILLE TILLERS: 20% discounts. Replacement 90. Sand stamp Discount Parts Catalog, 30x70 hut, pond site.

10 ACRES, IRISH HILLS:

LAGGIA'S Fish Farm, Inc., 50653 30th Street, Gobles, MI 49055. Call 1-616-628-2088. Days 6-124-6211 evenings.

FRESH FISH: Perch, whitefish, lake trout, salmon, catfish, whitefish, brought in by own trucks. Bayport Fish Company 1-517-552-2121.

WANTED TO BUY: 1989 200, 4x4 Ford F-250, $500 or best offer. Call 1-313-349-1744.

INTERNATIONAL 510 grain
die for sale. Good condition. Sell for $8,500.00. 1-517-398-9042.

FARMERS ANTIQUE TRACTOR AND ENGINE ASSOCIATION SPRING SHOW, June 10-12, 1994 at Old Rome Farm Museum, 3000 Founder Road, Acton, MI 49221. 1-517-436-3029.
Small and mid-size hog producers could easily become discouraged about the future if they become associated with evidence that their industry is moving irreversibly toward bigger and more specialized operations.

They shouldn't be too quick to throw in the towel, says Glenn Grimes, University of Missouri agricultural economist. Grimes says many of these same small businesses will be thriving into the next century if they take steps necessary to remain competitive.

Grimes, a professor emeritus in livestock marketing at the University of Missouri, recently prepared a report on the hog industry at the request of the American Farm Bureau Federation Swine Advisory Committee, which includes producer-leaders from 20 states.

Over the past 20 years, the number of hog operations in the country has dropped by less than a third of the 750,000 operations that produced hogs in 1973. Most of the hog farms today, like many other farms, still can be termed small businesses. According to the National Federation of Independent Businesses, small business is the fastest growing segment of business in urban America. But in rural America, the number of smaller farms and ranches continues to decline.

There are economies of scale that favor larger operations, but there are also certain advantages that help smaller, efficient operations remain competitive in the market, said Grimes.

The average hog farm marketed less than 500 head in 1987, according to data from the U.S. Census Bureau. Much of the U.S. hog production is still accomplished by relatively small producers.

A University of Missouri Pork '92 survey indicated only about 23 percent of U.S. hog production was by firms marketing 10,000 head or more annually. All the small operators haven't been taken over yet.

Relatively small producers still have advantages such as flexibility, family labor, homegrown feed. Less concentrated operations are also favored from the standpoint of environmental concerns.

The cost of production per unit doesn't change much between large and small operations when the levels of management are equal. The lowest-cost one-third of producers are competitive with the best large producers.

Small producers can often match the buying and selling advantages of their larger competitors by working with their neighbors to take advantage of some economies of scale.

Small producers can remain competitive in the marketplace with larger producers if they are not afraid to make changes where needed and give up some independence.

Long-term, small producers must exhibit a willingness to change and a determination not to be excluded from technology advances and information because of size or other so-called limiting factors. If a producer doesn't have good records of production costs, establish them, says Grimes. You can't know what needs fixing if you don't know what is broken.

Some minor production techniques are just as important to keep track of as big ones, according to Grimes. For example, be sure to check feeders often to minimize waste, sort for the market to meet packer needs and control the number of open-sow days.

Small operators should take advantage of family resources and maximize use of incentives for top productive effort. Utilize best management techniques of the large producer that can be excluded from technology advances and information because of size or other so-called limiting factors. If a producer doesn't have good records of production costs, establish them, says Grimes. You can't know what needs fixing if you don't know what is broken.

Some minor production techniques are just as important to keep track of as big ones, according to Grimes. For example, be sure to check feeders often to minimize waste, sort for the market to meet packer needs and control the number of open-sow days.

Small operators should take advantage of family resources and maximize use of incentives for top productive effort. Utilize best management techniques of the large producer that can be excluded from technology advances and information because of size or other so-called limiting factors. If a producer doesn't have good records of production costs, establish them, says Grimes. You can't know what needs fixing if you don't know what is broken.

Some minor production techniques are just as important to keep track of as big ones, according to Grimes. For example, be sure to check feeders often to minimize waste, sort for the market to meet packer needs and control the number of open-sow days.

Small operators should take advantage of family resources and maximize use of incentives for top productive effort. Utilize best management techniques of the large producer that can be excluded from technology advances and information because of size or other so-called limiting factors. If a producer doesn't have good records of production costs, establish them, says Grimes. You can't know what needs fixing if you don't know what is broken.